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ATTORNEY DOCKET NO. 231181

CLIENT REF. NO. PA33838US-HVhfm

U.S. APPLICATION NO. 10/510,628

**TRANSMITTAL LETTER TO THE UNITED STATES
DESIGNATED/ELECTED OFFICE (DO/EO/US)
CONCERNING A FILING UNDER 35 USC 371 AND 37 CFR 1.491**

INTERNATIONAL APPLICATION NO.
PCT/EP03/03799

INTERNATIONAL FILING DATE
April 11, 2003

PRIORITY DATE CLAIMED
April 11, 2002

TITLE OF INVENTION USE OF BIOLOGICAL PHOTORECEPTORS AS DIRECTLY LIGHT-ACTIVATED ION CHANNELS

APPLICANT(S) FOR DO/EO/US Hegemann et al.

Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:

1. ☐ This is a **FIRST** submission of items concerning a filing under 35 USC 371 and 37 CFR 1.491.
2. ☒ This is a **SECOND** or **SUBSEQUENT** submission of items concerning a filing under 35 USC 371 and 37 CFR 1.491.
3. ☐ This is an express request to begin national examination procedures (35 USC 371(f)).
4. ☐ The US has been elected by the expiration of 19 months from the priority date (PCT Article 31).
5. ☐ A copy of the International Application as filed (35 USC 371(c)(2))
 - a. ☐ is attached hereto (required only if not communicated by the International Bureau).
 - b. ☐ has been communicated by the International Bureau.
 - c. ☐ is not required, as the application was filed in the United States Receiving Office (RO/US).
6. ☐ An English language translation of the International Application as filed (35 USC 371(c)(2)).
7. ☐ Amendments to the claims of the International Application under PCT Article 19 (35 USC 371(c)(3))
 - a. ☐ are attached hereto (required only if not communicated by the International Bureau).
 - b. ☐ have been communicated by the International Bureau.
 - c. ☐ have not been made; however, the time limit for making such amendments has NOT expired.
 - d. ☐ have not been made and will not be made.
8. ☐ An English language translation of the amendments to the claims under PCT Article 19 (35 USC 371(c)(3)).
9. ☐ An oath or declaration of the inventor(s) (35 USC 371(c)(4)).
10. ☐ An English language translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 USC 371(c)(5)).
11. Nucleotide and/or Amino Acid Sequence Submission
 - a. ☐ Computer Readable Form (CRF)
 - b. Specification Sequence Listing on:
 - i. ☐ CD-ROM or CD-R (2 copies); or
 - ii. ☐ Paper Copy
 - c. ☐ Statement verifying identity of above copies

Items 12 to 19 below concern other document(s) or information included:

12. ☒ An Information Disclosure Statement under 37 CFR 1.97 and 1.98.
 - ☒ Form PTO-1449
 - ☒ Copies of References (except for U.S. patents and applications)
13. ☐ An assignment for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.
14. ☐ A **FIRST** preliminary amendment.
☐ A **SECOND** or **SUBSEQUENT** preliminary amendment.
15. ☐ A substitute specification.
16. ☐ A change of power of attorney and/or address letter.
17. ☒ Application Data Sheet Under 37 CFR 1.76
18. ☒ Return Receipt Postcard
19. ☐ Other items or information:

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20. The following fees are submitted: <input type="checkbox"/> Basic National Fee (37 CFR 1.492(a)(1)-(5)): Neither international preliminary examination fee (37 CFR 1.482) nor international search fee (37 CFR 1.445(a)(2)) paid to USPTO and International Search Report not prepared by the EPO or JPO \$1,110.00 International preliminary examination fee (37 CFR 1.482) not paid to USPTO but International Search Report prepared by the EPO or JPO \$950.00 International preliminary examination fee (37 CFR 1.482) not paid to USPTO, but international search fee (37 CFR 1.445(a)(2)) paid to USPTO \$790.00 International preliminary examination fee paid to USPTO (37 CFR 1.482) but all claims did not satisfy provisions of PCT Article 33(1)-(4) \$750.00 International preliminary examination fee paid to USPTO (37 CFR 1.482) and all claims satisfied provisions of PCT Article 33(1) to (4) \$100.00 <div style="text-align: right;">ENTER APPROPRIATE BASIC FEE AMOUNT=</div>			CALCULATIONS	PTO USE ONLY																				
<input type="checkbox"/> Claim Fee <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:20%;">CLAIMS</th> <th style="width:20%;">NUMBER FILED</th> <th style="width:20%;">NUMBER EXTRA</th> <th style="width:20%;">RATE</th> <th style="width:20%;"></th> </tr> </thead> <tbody> <tr> <td>Total Claims</td> <td style="text-align: right;">-20=</td> <td style="text-align: right;">0</td> <td style="text-align: right;">x \$ 18.00</td> <td style="text-align: right;">\$0.00</td> </tr> <tr> <td>Independent Claims</td> <td style="text-align: right;">- 3 =</td> <td style="text-align: right;">0</td> <td style="text-align: right;">x \$ 88.00</td> <td style="text-align: right;">\$0.00</td> </tr> <tr> <td colspan="3"> <input type="checkbox"/> Multiple Dependent Claim(s) (if applicable) </td> <td style="text-align: right;">+\$300.00</td> <td style="text-align: right;">\$0.00</td> </tr> </tbody> </table>			CLAIMS	NUMBER FILED	NUMBER EXTRA	RATE		Total Claims	-20=	0	x \$ 18.00	\$0.00	Independent Claims	- 3 =	0	x \$ 88.00	\$0.00	<input type="checkbox"/> Multiple Dependent Claim(s) (if applicable)			+\$300.00	\$0.00		
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Total Claims	-20=	0	x \$ 18.00	\$0.00																				
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<input type="checkbox"/> Multiple Dependent Claim(s) (if applicable)			+\$300.00	\$0.00																				
<input type="checkbox"/> Surcharge of \$130.00 for furnishing the National fee or oath or declaration later than <input type="checkbox"/> 20 <input type="checkbox"/> 30 months from the earliest claimed priority date			\$0.00																					
TOTAL OF ABOVE CALCULATIONS=			\$0.00																					
<input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27. The fees indicated above are reduced by 1/2.			\$(0.00)																					
SUBTOTAL=			\$0.00																					
<input type="checkbox"/> Processing fee of \$130.00 for furnishing English Translation later than <input type="checkbox"/> 20 <input type="checkbox"/> 30 months from the earliest claimed priority date.			\$0.00																					
TOTAL NATIONAL FEE=			\$0.00																					
<input type="checkbox"/> Fee for recording the enclosed assignment. The assignment must be accompanied by an appropriate cover sheet. \$40.00 per property			\$0.00																					
TOTAL FEE=			\$0.00																					
			Amount to be: refunded	\$																				
			charged:	\$																				

a. ☒ No fee is believed to be due.

b. ☐ Please charge Deposit Account No. 12-1216 the total fee indicated above.

c. ☒ The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 12-1216. A duplicate copy of this sheet is enclosed.

NOTE: Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the application to pending status.

SEND ALL CORRESPONDENCE TO CUSTOMER NO. 23460:

23460

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CERTIFICATE OF MAILING

I hereby certify that all of the items listed as enclosures is being deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to: Mail Stop PCT, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Melissa Kolom

Printed Name of Person Signing:

Mel. Kolom

Signature